Space and Missile Defense Technical Center

Advanced Technology for the Warfighter

The mission of the Space and Missile Defense Technical Center (SMDTC) is to manage and advance missile defense and space technology research and development for the Army, Navy, Air Force, Missile Defense Agency (MDA), and other defense-related government organizations; and to develop opportunities for international cooperation, academia, industry, and other government agencies and partnerships.

The SMDTC also provides engineering resources and expertise in support of the Army Program Executive Office for Air and Missile Defense and the MDA, specifically in support of: the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System, the Joint Tactical Ground System, the Ground-Based Midcourse Defense Joint Project Office, the Targets and Countermeasures Program, the Theater High Altitude Air Defense Project Office, the Lower Tier Project Office, and the Arrow Project Office.

Organization

The Technical Center is organized into nine directorates: Systems, Directed Energy, Kinetic Energy Interceptors, Space Technology, Data Analysis & Exploitation, Advanced Interceptor Technology, Information Science & Technology, Sensors, and Test & Evaluation. In addition: the Technical Center has two MDA Joint Centers: the Joint Center for Technology Integration, and the Joint Center for Test & Evaluation.

Core Competencies, Services, & Products

- **Radar** — Across the SMDTC directorates, multiple radar programs and technology concepts are in various stages of maturity. These include programs and technologies to increase radar range; to counter electronic countermeasures; to engage multiple targets; to improve countermeasure discrimination; to develop ultra lightweight radar power technology; and to detect, discriminate, and track in heavy clutter.
- **Optics** — Several of the SMDTC directorates are involved in the understanding and development of optical technologies. Current programs being managed by the SMDTC include: the Photo Conductor on Active Pixel, the Portable Optical Sensor Testbed, the Multi-application Focal Plane Arrays Program, and the Optical Data Analysis Program.
- **Interceptors** — SMDTC is the historical and intellectual home of ballistic missile interceptor development, from the NIKE-X program to the current state of the art. Technologies and concepts in various stages of development include: Miniature Kill Vehicles, Multisensor Seekers, Radiation-hardened Advanced Electronics, Advanced Data Fusion Algorithms, and High-G Solid Divert Propulsion.
- **Lasers** — The SMDTC is the recognized Army lead in High Energy Laser capabilities and systems development. SMDTC is currently managing three laser programs: the Mobile Tactical High Energy Laser Program, the Solid State High Energy Laser Technology Program, and the Advanced Tactical Laser Advanced Concept Technology Development (ACTD) Program.
- **Systems Engineering & Safety** — The System Engineering discipline is practiced and supported across the Technical Center by employing the Technology Program Management Model. Other missions executed by system engineers include: the Survivability Program, Missile Production Safety Support; the Eagle Eyes Program; and oversight of the DECADE Nuclear Test Chamber.
- **Information Technology** — Warfighters must be able to process, communicate, protect, manage, and act upon information; and do it better and faster than our adversaries. The SMDTC is the command proponent for Computer Network Operations and Information Technology Superiority. As such, the SMDTC manages the Wide Bandwidth Technology Program and the Missile Defense Data Center.
- **Space Technology** — The SMDTC is the recognized Army lead in Space Control Technology Development (surveillance, negation, protection) and Space Technology Applications. Our space technology engineers and scientists execute two Science and Technology Objectives and three ACTDs (the High Altitude Airship Program, the Battlefield Ordnance Awareness Program, and the Space Based Soldier System Program).
- **Flight Test Support** — In addition to technology products, the SMDTC provides vital flight test services for the MDA. SMDTC manages airborne test measurement platforms, data collection planning, data analysis, target signature development, radar/optical model development, and algorithm development for the System Integration Tests, the Hercules Flight Tests, KE Boost Phase Program, the Critical Measurements Program, and the Aerial Dispersion Experiment.

For more information, please contact:

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